

26 27. (AMENDED) A method of supplying data to be used in a network initiated over the air updating of operational parameters in a wireless communication system mobile station comprising the steps of:  
paging a mobile station from a base station of the network;  
supplying a parameter updating indicator to said mobile station; and  
updating operational parameters in the mobile station in accordance with data received over the air from the network.

Please add the following new claim:

28 28. The method of claim <sup>2</sup>~~16~~ comprising the additional step of:  
transferring the over-the-air parameter administration pending flag from a mobile switching center (MSC) to a home location register (HLR) when it is not possible to update a mobile station due to mobile station inactivity or due to the inability of an MSC to update the mobile station.

REMARKS

Claims 1-12 and 14-28 are pending. Applicants, furthermore, note with appreciation the Examiner's indication, in paragraphs 15-17 of the Office action, of allowable subject matter, namely, of Claims 15, 17, 19, and 21-22, provided certain rejections under 35 U.S.C. § 112 and/or objections thereof are overcome. Accordingly, Applicants have carefully considered the application in view of the Examiner's action, and the allowable subject matter and, in light of the foregoing

amendments and the following remarks, respectfully requests reconsideration and full allowance of all pending claims.

As a preliminary matter, Applicant requests that the Attorney Docket Number assigned to the present case be changed from "17275-P030US" to -- NORTH 649001--.

Claims 4, 11, 16, 17, 22, 23, and 27 have been amended to correct minor informalities and/or minor typographical errors, and/or to more particularly point out that which Applicant regards as his invention, and add no new matter to the application as originally filed.

Claim 17 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant's regard as the invention. In response, Applicants have amended Claim 17 to overcome the rejection thereof, without adding any new matter to the application as originally filed. In light of the foregoing, Applicant respectfully requests the withdrawal of the rejection of Claim 17.

Claims 6, 8, 23, 25, and 27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,854,978 to Heidari (hereinafter "Heidari"). Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Heidari. Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Heidari as applied to Claim 1, and further in view of U.S. Patent No. 5,943,425 to Mizikovsky (hereinafter "Mizikovsky"). Claims 4, 5, and 10-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Heidari in view of Mizikovsky. Claim 7 stands rejected under 35 U.S.C. § 103(a) as being

unpatentable over Heidari as applied to Claim 6, and further in view of Mizikovsky. Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Heidari as applied to Claim 8, and further in view of Mizikovsky. Claim 24 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Heidari as applied to Claim 23. Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Heidari as applied to Claim 23, and further in view of Mizikovsky. In response, Applicants have cancelled Claim 13, without prejudice or disclaimer, rendering the rejection thereof moot, and have amended independent Claims 1, 23, and 27, without adding any new matter to the application as originally filed, and such that they now clearly distinguish and are patentable over the cited references. Applicants respectfully traverse the rejection of the remaining claims.

Independent Claims 1, 4, 6, 8, 10, 12, 23, and 27 generally recite that the *network* initiates the updating of *operational parameters* (or “programming” in Claim 12). The network of Applicant’s invention includes at least a mobile switching center (MSC), in addition to a base station (BS). In contrast, Heidari does not even mention an MSC, and furthermore, discloses that the *base station*, and *not* the network, initiates anything (*i.e.*, updating DSP programs). In fact, it would be very inefficient and detrimental to the intended functionality of Heidari if Heidari were configured for the network to initiate updating of DSP programs.

Still further independent Claims 1, 4, 6, 8, 10, 23, and 27 generally recite updating *operational parameters*, which are used to determine which control channels may be selected, which digital signal processing (DSP) algorithms may

be used, where the algorithms are embodied in a DSP program, and Mobile Identification Numbers (MIN) by which an MS may be reached. In contrast, Heidari is limited to updating *DSP programs* used only to digitize and compress analog speech data.

Independent Claims 1, 10, 23, and 27 generally recite *paging a mobile from a base station of the network*, i.e., the MS must first be located by the network. In contrast, Heidari, at col. 5, line 60 - col. 6, line 5, recited by the Examiner, merely discloses the base station initiating a change in protocol. Thus, Heidari requires that the base station know where the MS is and that the base station be in communicative contact over a traffic channel with the MS.

It is noted that at the top of page 6 of the Office action, the Examiner has indicated that handover may occur when a mobile is off-hook and not using a traffic signal. Applicants respectfully submit, however, that handover occurs *only* when the mobile is already on a traffic channel in an active call in the source cell. Part of the standardized handover procedure is to allocate a traffic channel in the new (target) cell, in order to continue a call. In Applicants' invention, parameter updates may occur even when there is no call in progress. In this case, as recited in Claim 1, a traffic channel is allocated, in order to download parameters. Note that such allocation is independent of any handover that may subsequently occur. When Applicants allocate a traffic channel for the explicit purpose of downloading parameters, the traffic channel is deallocated when the download is complete (as recited in Claim 2). Heidari does not deallocate the traffic channel after downloading a new DSP program, as that would interrupt a in-progress call.

In Claims 3, 4, 10, 12, 13, and 26, the mobile station *authenticates the network*, where *the network has initiated* an attempt to download parameters, in order to prevent “programming by an unauthorized network entity during the duration of an OTAPA function.” In contrast, Mizikovsky discloses the *mobile initiating* the downloading process by originating a call. Mizikovsky thus fails to overcome the deficiencies of Heidari with respect to Claims 3, 4, 10, 12, 13, and 26.

Claims 14, 16, 18, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,603,084 to Henry, Jr. et al. (hereinafter “Henry”) in view of U.S. Patent No. 5,890,075 to Cyr et al. (hereinafter “Cyr”). In response, Applicants respectfully traverse these rejections.

Independent Claims 14 and 18 recite a *pending* flag, in contrast to Henry which fails to teach or even suggest using a pending flag. While Cyr discloses the use of a pending flag, Cyr does not cure the deficiencies of Henry, because it is not at all clear *how* Cyr could be combined with Henry. Moreover, if, for the sake of argument, Cyr were somehow combined with Henry, it is respectfully submitted that it would *destroy the functionality* of Henry. Henry is configured to use a pending flag, and the semantics of such a flag are totally different from those of a pending flag, such as used by Cyr. The flag in Henry is required to cause the MS to receive messages, whereas Cyr uses a pending flag to update data. To impose a pending flag onto Henry, which would be the result of combining Henry with a reference, such as Cyr, that requires a pending flag, would thereby prevent Henry from performing its intended functions.

In view of the foregoing, it is apparent that none of the cited references, either singularly or in any combination, teach, suggest, or render obvious the unique combination now recited in independent Claims 1, 4, 6, 8, 10, 12, 14, 18, 23, and 27. It is therefore respectfully submitted that Claims 1, 4, 6, 8, 10, 12, 14, 18, 23, and 27 clearly and precisely distinguish over the cited combinations of references in a patentable sense, and are therefore allowable over those references and the remaining references of record. Accordingly, it is respectfully requested that the rejection of Claims 1, 4, 6, 8, 10, 12, 14, 18, 23, and 27 under 35 U.S.C. §§ 102(e) as being anticipated by Heidari, or under 103(a) as being unpatentable over Heidari in view of Mizikovsky, or over Henry in view of Cyr, be withdrawn.

Claims 2, 3, 5, 7, 9, 11, 16, 17, 20, and 24-26 depend from and further limit independent Claims 1, 4, 6, 8, 10, 12, 14, 18, 23, and 27, in a patentable sense, and, for this reason and the reasons set forth above, are also deemed to be in condition for allowance. Accordingly, it is respectfully requested that the rejections of dependent Claims 2, 3, 5, 7, 9, 11, 16, 17, 20, and 24-26 be withdrawn, as well.

New Claim 28 is supported by Claim 17 as originally filed, and adds no new matter to the application as originally filed. Claim 28, furthermore, depends from and further limits independent Claim 16, in a patentable sense, and, for this reason and the reasons set forth above, is also deemed to be in condition for allowance.

It is noted with appreciation that Examiner Craver has indicated that Claims 15, 19, 21, and 22 would be allowable if rewritten in independent form including

all of the limitations of the base claim and any intervening claims. It is noted with further appreciation that Examiner Craver has indicated that Claim 17 would be allowable if rewritten to overcome the rejection under 35 USC 112, 2<sup>nd</sup> paragraph, and to include all of the limitations of the base claim and any intervening claims. For the reasons stated above, however, Applicants deem that the base claims and any intervening claims from which Claims 15, 17, 19, 21, and 22 depend are in condition for allowance. Therefore, notwithstanding Applicants' appreciation of Examiner Craver's indication of allowable subject matter, Applicants elect to await further action from Examiner Craver with respect to said base claims and any intervening claims before proceeding to rewrite Claims 15, 17, 19, 21, and 22 in independent form.

Applicant has reviewed the prior art made of record and not relied on, and has concluded that this art does not prejudice the patentability of the invention defined by the present claims. For this reason and the reason that they have not been applied against Applicant's claims, no further discussion of them is deemed necessary.

The Notice of Draftsperson's Patent Drawing Review is noted and, in response, Applicant will make the indicated corrections and submit formal drawings upon allowance of this application.

Applicant does not believe any fees are due; however, in the event that any fees are due, the Commissioner is hereby authorized to charge any required fees due (other than issue fees), and to credit any overpayment made, in connection

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with the filing of this paper to Deposit Account No. 50-0605 of Carr & Storm,  
L.L.P.

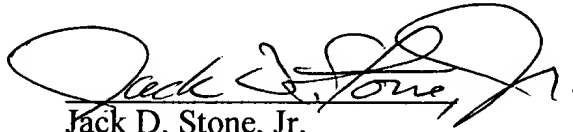
Applicant has now made an earnest attempt to place this application in  
condition for allowance. Therefore, with appreciative acknowledgement of  
Examiner Craver's indication of Claims 15, 17, 19, and 21-22 as allowable subject  
matter, Applicant respectfully requests, for the reasons set forth herein and for  
other reasons clearly apparent, full allowance of all of Claims 1-12 and 14-28 so  
that the application may be passed to issue.

Should the Examiner deem that any further amendment is desirable to place  
this application in condition for allowance, the Examiner is invited to telephone  
the undersigned at the number listed below.

Respectfully submitted,

CARR & STORM, L.L.P.

Dated: March 28, 2000

  
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